

## LCI SCIENCE DEPARTMENT SCIENCE 14 COURSE OUTLINE

Science 14 consists of 4 units of study:

### Unit 1: Investigating Properties of Matter (20% of course)

The student will learn the safe handling, storage and disposal of household chemicals as well as a general knowledge of WHMIS. Solutions and solubility, dilution and concentration will also be studied. Nature of Science emphasis.

### Unit 2: Understanding Energy Transfer Technologies (20% of course)

Cooling and heating systems based on radiation, conduction and convection will be investigated. The particle model of matter, temperature and heat and methods of reducing heat loss in homes and buildings will be covered. Simple machines that transfer energy and reducing the reliance on non-renewable energy sources will also be discussed. Science and technology emphasis.

### Unit 3: Investigating Matter and Energy in Human Systems (20% of course)

Relationships between digestive and circulatory systems, human diet and related social issues will be explored. Microscopy and its use in looking at cell structure and function and energy storage and use by photosynthesis and respiration will be studied. Science and technology emphasis.

### Unit 4: Investigating Matter and Energy in the Environment (20% of course)

The cycling of matter and flow of energy through the biosphere including the biotic and abiotic factors affecting both will be explored. Human influence on agriculture, the environment; recycling and population growth factors will be studied.

#### UNIT EVALUATION:

Class work/Labs/Assignments	50%
Chapter Tests	50%

#### COURSE EVALUATION

Class/Lab Work/Tests	80%
FINAL EXAM	20%

**Attendance, punctuality and being prepared for class** are necessary to maximize your achievement in this course. They are also requirements of the LCI Science Department.